

## EAST Search History

| Ref # | Hits    | Search Query   | DBs   | Default Operator | Plurals | Time Stamp       |
|-------|---------|--|---|------------------|---------|------------------|
| S1    | 1       | 10/675203  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2005/06/21 11:36 |
| S2    | 323243  | ((silicon adj dioxide) or (SiO2 or SiOx or SiOn or "SiO.sub2" or "SiO.subx" or "SiO.subn" or "SiO.sub.2" or "SiO.sub.x" or "SiO.sub.n"))         | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/07/13 09:12 |
| S3    | 364844  | (aluminum adj oxide) or (alumina OR AlO3 or AlO3 or AlOn or "AlO.sub3" or "AlO.subx" or "AlO.subn" or "AlO.sub.3" or "AlO.sub.x" or "AlO.sub.n") | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2006/07/11 17:06 |
| S4    | 801195  | Cu or Nife or Ni-fe or Sc-Zn or Sczn   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2005/06/21 08:22 |
| S5    | 1783805 | etch or remove   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2005/06/21 08:24 |
| S6    | 41700   | RIE or (reactive adj ion adj etch)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2005/06/21 08:24 |
| S7    | 30201   | DRIE or (deep adj reactive adj ion adj etch)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2005/06/21 08:24 |
| S8    | 1817901 | S5 or S6 or S7   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2005/06/21 08:25 |
| S9    | 590     | S5 and S6 and S7   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2005/06/21 08:25 |

## EAST Search History

|     |         |  |   |    |    |                  |
|-----|---------|--|---|----|----|------------------|
| S10 | 75590   | S2 and S3  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/06/21 08:25 |
| S11 | 40337   | S3 and S4  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/06/21 08:25 |
| S12 | 15132   | S10 and S11  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/06/21 08:26 |
| S13 | 69      | S9 and S10   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/06/21 08:26 |
| S14 | 19      | S9 and S11   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/06/21 08:26 |
| S15 | 16      | S9 and S12   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/06/21 08:45 |
| S16 | 2125253 | (dic\$3 or cut\$3 or slic\$3 or saw\$3)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/06/21 08:30 |
| S17 | 539722  | S16 and (S2 or (silicon or Si) or<br>(silicon adj substrate) or (silicon adj<br>wafer) or (silicon adj thin sdj head)) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/06/21 08:32 |
| S18 | 289     | S17 and S9   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/06/21 08:34 |
| S19 | 9       | S18 and S12  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/06/21 08:34 |

## EAST Search History

|     |       |   |   |    |    |                  |
|-----|-------|---|---|----|----|------------------|
| S20 | 572   | 438/712.ccls.                           | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/06/21 08:45 |
| S21 | 103   | S20 and S16                             | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/06/21 09:03 |
| S22 | 50    | seperat\$4 and die and wafer            | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/06/21 09:07 |
| S23 | 0     | seperat\$4 near (wafer or die) and DRIE | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/06/21 09:08 |
| S24 | 0     | DRIE and seperat\$4 near (wafer or die) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/06/21 09:09 |
| S25 | 10    | seperat\$4 near (wafer or die)          | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/06/21 09:09 |
| S26 | 3606  | slic\$4 near (die or wafer)             | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/06/21 09:10 |
| S27 | 43149 | cut\$4 near (die or wafer)              | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/06/21 09:10 |
| S28 | 46130 | S27 or S26                              | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/06/21 09:11 |
| S29 | 587   | S28 and RIE                             | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/06/21 09:11 |

## EAST Search History

|     |         |                                  |   |    |     |                  |
|-----|---------|----------------------------------|---|----|-----|------------------|
| S30 | 574     | S28 and DRIE                     | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/21 09:16 |
| S31 | 23      | throughhole and DRIE             | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/21 09:18 |
| S32 | 1908    | (through adj hole) and DRIE      | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/21 09:19 |
| S33 | 326     | throughhole and etch             | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/21 09:19 |
| S34 | 11080   | (through adj hole) and etch      | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/21 09:19 |
| S35 | 1988821 | S34 and silicon substrate        | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/21 09:20 |
| S36 | 2608    | S34 and (silicon adj substrate)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/21 09:20 |
| S37 | 158     | S36 and S7                       | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/06/21 09:26 |
| S38 | 5       | DRIE near silicon near substrate | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/21 09:36 |
| S39 | 11      | DRIE near substrate              | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/21 10:08 |

## EAST Search History

|     |     |   |   |    |     |                  |
|-----|-----|---|---|----|-----|------------------|
| S40 | 0   | DRIE near resist near ((aluminum adj oxide) or (alumina OR AlO3 or AlO3 or AlO3 or AlOn or "AlO.sub3" or "AlO. subx" or "AlO.subn" or "AlO.sub.3" or "AlO.sub.x" or "AlO.sub.n")) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/21 10:08 |
| S41 | 0   | DRIE near ((aluminum adj oxide) or (alumina OR AlO3 or AlO3 or AlOn or "AlO.sub3" or "AlO.subx" or "AlO. subn" or "AlO.sub.3" or "AlO.sub.x" or "AlO.sub.n"))                     | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/21 10:09 |
| S42 | 130 | DRIE and ((aluminum adj oxide) or (alumina OR AlO3 or AlO3 or AlOn or "AlO.sub3" or "AlO.subx" or "AlO. subn" or "AlO.sub.3" or "AlO.sub.x" or "AlO.sub.n"))                      | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/21 10:10 |
| S43 | 112 | S42 and etch\$4   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/21 10:40 |
| S44 | 2   | "6897148".pn.   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/21 13:58 |
| S45 | 2   | "6184060".pn.   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON  | 2005/06/21 11:36 |
| S46 | 0   | 2002/0218140  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/21 13:59 |
| S47 | 0   | US2002/0218140  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/21 13:59 |
| S48 | 0   | US2002-0218140  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/21 13:59 |
| S49 | 22  | "0218140"   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/21 14:00 |

## EAST Search History

|     |        |   |   |    |     |                  |
|-----|--------|---|---|----|-----|------------------|
| S50 | 0      | "218140" and tamamori   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/21 14:01 |
| S51 | 0      | 08/218140 and Tamamori  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/21 14:01 |
| S52 | 33     | "2002" and Tamamori   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/21 14:02 |
| S53 | 5      | laser adj cut adj wafer   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/21 14:09 |
| S54 | 21     | laser adj cut adj (dice or die)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/21 14:09 |
| S55 | 288975 | S54 and (aluminum adj oxide) or<br>(alumina OR AlO3 or AlO3 or AlOn<br>or "AlO.sub3" or "AlO.subx" or "AlO.<br>subn" or "AlO.sub.3" or "AlO.sub.x"<br>or "AlO.sub.n")                                   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/21 14:10 |
| S56 | 0      | S54 and ((aluminum adj oxide) or<br>(alumina OR AlO3 or AlO3 or AlOn<br>or "AlO.sub3" or "AlO.subx" or "AlO.<br>subn" or "AlO.sub.3" or "AlO.sub.x"<br>or "AlO.sub.n"))                                 | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/21 14:10 |
| S57 | 414    | (cut adj (die or dice or wafer)) and<br>((aluminum adj oxide) or (alumina<br>OR AlO3 or AlO3 or AlOn or "AlO.<br>sub3" or "AlO.subx" or "AlO.subn"<br>or "AlO.sub.3" or "AlO.sub.x" or<br>"AlO.sub.n")) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/21 14:13 |
| S58 | 40     | S57 and cut.ab.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 08:20 |

## EAST Search History

|     |        |  |   |    |     |                  |
|-----|--------|--|---|----|-----|------------------|
| S59 | 9      | S58 and ((silicon adj dioxide) or (SiO2 or SiOx or SiOn or "SiO.sub2" or "SiO.subx" or "SiO.subn" or "SiO.sub.2" or "SiO.sub.x" or "SiO.sub.n"))   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/21 14:47 |
| S60 | 364844 | (aluminum adj oxide) or (alumina OR AlO3 or AlO3 or AlOn or "AlO. sub3" or "AlO.subx" or "AlO.subn" or "AlO.sub.3" or "AlO.sub.x" or "AlO.sub.n")  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON  | 2005/06/22 08:20 |
| S61 | 414    | (cut adj (die or dice or wafer)) and ((aluminum adj oxide) or (alumina OR AlO3 or AlO3 or AlOn or "AlO. sub3" or "AlO.subx" or "AlO.subn" or "AlO.sub.3" or "AlO.sub.x" or "AlO.sub.n")) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/22 08:20 |
| S62 | 40     | S61 and cut.ab.  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/22 08:20 |
| S63 | 40     | S62 and S60  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/22 08:45 |
| S64 | 62     | thin adj film adj slider\$1  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/22 08:46 |
| S65 | 33     | S64 and cut  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/22 14:16 |
| S66 | 14     | S65 and ((silicon adj dioxide) or (SiO2 or SiOx or SiOn or "SiO.sub2" or "SiO.subx" or "SiO.subn" or "SiO.sub.2" or "SiO.sub.x" or "SiO.sub.n"))   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/22 08:47 |
| S67 | 3      | S66 and ((aluminum adj oxide) or (alumina OR AlO3 or AlO3 or AlOn or "AlO.sub3" or "AlO.subx" or "AlO. subn" or "AlO.sub.3" or "AlO.sub.x" or "AlO.sub.n"))                              | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/06/22 08:47 |

## EAST Search History

|     |       |  |   |    |     |                  |
|-----|-------|--|---|----|-----|------------------|
| S68 | 2     | "4624048",pn.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 09:27 |
| S69 | 293   | wafer adj packaging  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 09:27 |
| S70 | 5777  | (wafer or die or dice) adj packag\$4   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 09:28 |
| S71 | 8     | S70 and DRIE   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 09:33 |
| S72 | 2     | S71 and cut  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 09:28 |
| S73 | 0     | die and seperat\$4 and etch.ab.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 09:34 |
| S74 | 17090 | (die or dice or wafer) and<br>(seperat\$4 or cut\$4) and (etch or<br>(deep near etch) or DRIE or RIE or<br>(reactive near etch))                                       | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 09:37 |
| S75 | 8385  | S74 and ((silicon adj dioxide) or<br>(SiO2 or SiOx or SiOn or "SiO.sub2"<br>or "SiO.subx" or "SiO.subn" or "SiO.<br>sub.2" or "SiO.sub.x" or "SiO.sub.<br>n"))         | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 09:36 |
| S76 | 1756  | S75 and ((aluminum adj oxide) or<br>(alumina OR AlO3 or AlO3 or AlO<br>or "AlO.sub3" or "AlO.subx" or "AlO.<br>subn" or "AlO.sub.3" or "AlO.sub.x"<br>or "AlO.sub.n")) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 09:37 |
| S77 | 45    | S76 and (seperat\$4 or cut\$4).ab.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 13:28 |

## EAST Search History

|     |       |  |   |    |     |                  |
|-----|-------|--|---|----|-----|------------------|
| S78 | 316   | RIE and DRIE   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 13:28 |
| S79 | 92    | S78 and (Cu or Ti or TiW or NiFe)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 13:44 |
| S80 | 23    | S79 and seed   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 13:31 |
| S81 | 9     | S80 and ((aluminum adj oxide) or (alumina OR AlO3 or AlO3 or AlOn or "AlO.sub3" or "AlO.subx" or "AlO.subn" or "AlO.sub.3" or "AlO.sub.x" or "AlO.sub.n")) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 13:31 |
| S82 | 84    | S79 and wafer  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 13:44 |
| S83 | 1     | "20030218140".PN.  | US-PGPUB  | OR | ON  | 2005/06/22 13:59 |
| S84 | 841   | DRIE and wafer   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 14:16 |
| S85 | 13946 | RIE and wafer  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 14:16 |
| S86 | 271   | S85 and S84  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 14:17 |
| S87 | 193   | S86 and ((silicon adj dioxide) or (SiO2 or SiOx or SiOn or "SiO.sub2" or "SiO.subx" or "SiO.subn" or "SiO.sub.2" or "SiO.sub.x" or "SiO.sub.n"))           | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 14:24 |

## EAST Search History

|     |        |   |   |    |     |                  |
|-----|--------|---|---|----|-----|------------------|
| S88 | 152    | S87 and (hardmask or mask)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 14:31 |
| S89 | 0      | S87 and (hardmask)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 14:25 |
| S90 | 0      | S87 and (hard adj resist)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 14:25 |
| S91 | 916675 | silicon and silicon dioxide and etch  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 14:31 |
| S92 | 32310  | silicon and silicon adj dioxide and etch  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 14:31 |
| S93 | 139    | S92 and S86   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 14:32 |
| S94 | 51318  | ((silicon adj dioxide) or (SiO2 or SiOx or SiOn or "SiO.sub2" or "SiO.subx" or "SiO.subn" or "SiO.sub.2" or "SiO.sub.x" or "SiO.sub.n")) and etch | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 14:33 |
| S95 | 580    | S94 and DRIE or (deep adj reactive adj ion adj etch)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 14:37 |
| S96 | 3      | S95 and (DRIE adj mask)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 14:40 |
| S97 | 212    | S95 and (etch adj stop)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 14:43 |

## EAST Search History

|      |     |   |   |    |     |                  |
|------|-----|---|---|----|-----|------------------|
| S98  | 113 | S97 and S85   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 16:22 |
| S99  | 178 | (dual adj damascene) and (photo adj resist) and (etch adj stop)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 16:27 |
| S100 | 0   | S99 and DRIE  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 16:24 |
| S101 | 0   | S99 and (deep adj reactive adj ion)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 16:24 |
| S102 | 145 | S99 and ((silicon adj dioxide) or (SiO2 or SiOx or SiOn or "SiO.sub2" or "SiO.subx" or "SiO.subn" or "SiO.sub.2" or "SiO.sub.x" or "SiO.sub.n"))            | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 16:28 |
| S103 | 142 | S102 and substrate  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 16:51 |
| S104 | 4   | S103 and (etch near substrate)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 16:46 |
| S105 | 7   | S103 and ((aluminum adj oxide) or (alumina OR AlO3 or AlO3 or AlOn or "AlO.sub3" or "AlO.subx" or "AlO.subn" or "AlO.sub.3" or "AlO.sub.x" or "AlO.sub.n")) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2005/06/22 16:47 |
| S106 | 2   | "6477019".pn.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/07/25 08:11 |
| S107 | 1   | 10/172125   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2005/07/25 08:11 |

## EAST Search History

|          |        |  |   |    |    |                  |
|----------|--------|--|---|----|----|------------------|
| S10<br>8 | 0      | cutting near (magnetic adj head adj devices) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/07/25 08:12 |
| S10<br>9 | 0      | cut near (magnetic adj head adj devices)     | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/07/25 08:12 |
| S11<br>0 | 204    | (magnetic adj head adj devices)              | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/07/25 08:12 |
| S11<br>1 | 404990 | S110 and cut wafer                           | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/07/25 08:12 |
| S11<br>2 | 2      | S110 and cut adj wafer                       | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/07/25 08:18 |
| S11<br>3 | 3322   | cut adj wafer                                | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/07/25 08:19 |
| S11<br>4 | 0      | S113 and RIE near cut\$3                     | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/07/25 08:19 |
| S11<br>5 | 153    | S113 and RIE                                 | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/07/25 08:48 |
| S11<br>6 | 2      | 09/876888                                    | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/07/25 08:48 |
| S11<br>7 | 2764   | copper and (hard adj mask)                   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/07/25 10:33 |

## EAST Search History

|          |    |                             |   |    |    |                  |
|----------|----|-----------------------------|---|----|----|------------------|
| S11<br>8 | 14 | copper near (hard adj mask) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/07/25 10:36 |
| S11<br>9 | 0  | 10/675203.pn.               | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/07/25 10:34 |
| S12<br>0 | 1  | 10/675203                   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/07/25 10:34 |
| S12<br>1 | 4  | copper adj (hard adj mask)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/07/25 10:37 |
| S12<br>2 | 1  | 08/689559                   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/07/25 10:37 |
| S12<br>3 | 1  | 08/698559                   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2005/07/25 14:36 |
| S12<br>4 | 1  | 10/675203                   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/01/25 07:53 |
| S12<br>5 | 4  | "6908716".pn.               | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/01/25 08:26 |
| S12<br>6 | 2  | "6171945".pn.               | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/01/25 09:09 |
| S12<br>7 | 2  | "6018861".pn.               | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/01/25 09:09 |

## EAST Search History

|          |        |  |   |    |    |                  |
|----------|--------|--|---|----|----|------------------|
| S12<br>8 | 358396 | ((silicon adj dioxide) or (SiO2 or SiOx or SiOn or "SiO.sub2" or "SiO.subx" or "SiO.subn" or "SiO.sub.2" or "SiO.sub.x" or "SiO.sub.n"))         | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:06 |
| S12<br>9 | 395117 | (aluminum adj oxide) or (alumina OR AlO3 or AlO3 or AlOn or "AlO.sub3" or "AlO.subx" or "AlO.subn" or "AlO.sub.3" or "AlO.sub.x" or "AlO.sub.n") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 18:32 |
| S13<br>0 | 84641  | S128 and S129  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:06 |
| S13<br>1 | 67     | DRIE near mask   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:06 |
| S13<br>2 | 861    | RIE near mask  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:06 |
| S13<br>3 | 168009 | silicon near substrate   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:11 |
| S13<br>4 | 8433   | S130 and S133  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:17 |
| S13<br>5 | 105    | nickle adj (plating or plated)   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:12 |
| S13<br>7 | 4      | nickel near RIE  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:11 |
| S13<br>8 | 2      | NiFe near RIE  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:16 |

## EAST Search History

|          |        |   |   |    |    |                  |
|----------|--------|---|---|----|----|------------------|
| S13<br>9 | 453276 | nickel or (nickel adj alloy) or Ni2 or Nix or Nin or Nisubx or Nisubn or "Ni.subx" or "Ni.subn" or "Ni.sub.x" or "Ni.sub.n" | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/11 17:47 |
| S14<br>0 | 47759  | RIE or (reactive adj ion adj etch)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/11 17:58 |
| S14<br>1 | 4      | S139 near S140  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/11 17:16 |
| S14<br>2 | 65     | NiFe near mask  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/11 17:31 |
| S14<br>3 | 281    | S139 near mask  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/11 17:16 |
| S14<br>4 | 346    | S142 or S143  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/11 17:16 |
| S14<br>5 | 20     | S134 and S144   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/11 17:27 |
| S14<br>6 | 24     | drie near (cut or seperate)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/11 17:18 |
| S14<br>7 | 0      | plasma near etch near cut near wafer  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/11 17:27 |
| S14<br>8 | 1      | etch near cut near wafer  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/11 17:28 |

## EAST Search History

|       |        |   |   |    |    |                  |
|-------|--------|---|---|----|----|------------------|
| S15 0 | 339400 | etch Silicon near substrate               | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:28 |
| S15 1 | 1055   | etch near Silicon near substrate          | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:28 |
| S15 2 | 41     | S151 and S128 and S129                    | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:43 |
| S15 3 | 5      | S152 and S139                             | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:29 |
| S15 4 | 11     | S144 with S128                            | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:31 |
| S15 5 | 4098   | S139 and S129 and S133                    | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:43 |
| S15 6 | 164    | S155 and (etch near (substrate or wafer)) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:43 |
| S15 7 | 24     | S156 and DRIE                             | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:44 |
| S15 8 | 30     | S156 and RIE                              | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:44 |
| S15 9 | 18     | S157 and S158                             | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:46 |

## EAST Search History

|       |       |   |   |    |    |                  |
|-------|-------|---|---|----|----|------------------|
| S16 0 | 36117 | (nickel or (nickel adj alloy) or Ni2 or Nix or Nin or Nisubx or Nisubn or "Ni.subx" or "Ni.subn" or "Ni.sub.x" or "Ni.sub.n") near (plate or plating or plated) | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:47 |
| S16 1 | 450   | S128 and S133 and S160  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:48 |
| S16 2 | 170   | S128 and S129 and S133 and S160   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:48 |
| S16 3 | 54    | S162 and etch   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:53 |
| S16 5 | 291   | etch near S139  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:54 |
| S16 6 | 14    | S165 same S128  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:57 |
| S16 7 | 375   | (deep adj reactive adj ion adj etch)  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:57 |
| S16 8 | 0     | S167 near S139  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:59 |
| S16 9 | 0     | S167 near S129  | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:58 |
| S17 0 | 8880  | (reactive adj ion adj etch)   | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/07/11 17:58 |

## EAST Search History

|          |       |   |   |    |    |                  |
|----------|-------|---|---|----|----|------------------|
| S17<br>1 | 0     | S170 near S139                                  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/11 17:59 |
| S17<br>2 | 77    | S170 same S139                                  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/11 18:07 |
| S17<br>3 | 21    | S172 and S129                                   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/11 18:09 |
| S17<br>4 | 33755 | drie or (deep adj reactive adj ion<br>adj etch) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/11 18:11 |
| S17<br>5 | 0     | S129 near S174 near mask                        | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/11 18:32 |
| S17<br>6 | 4     | -1 near S129                                    | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/11 18:32 |
| S17<br>7 | 8702  | S128 near S129                                  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/11 18:32 |
| S17<br>8 | 14    | S129 near over near S128                        | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/11 18:36 |
| S17<br>9 | 2     | S160 near over near S129                        | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/11 18:36 |
| S18<br>0 | 8     | copper near over near S129                      | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/12 13:45 |

## EAST Search History

|          |        |  |   |    |    |                  |
|----------|--------|--|---|----|----|------------------|
| S18<br>1 | 0      | DRIE near silicon near MEMS  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/12 13:46 |
| S18<br>2 | 114    | DRIE near silicon  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/12 13:46 |
| S18<br>4 | 46     | S182 and MEMS  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/12 14:29 |
| S18<br>5 | 2989   | B81C   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/12 14:43 |
| S18<br>6 | 294    | MEMS and DRIE and RIE  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/12 15:50 |
| S18<br>7 | 395117 | (aluminum adj oxide) or (alumina OR AlO3 or AlO3 or AlOn or "AlO.<br>sub3" or "AlO.subx" or "AlO.subn"<br>or "AlO.sub.3" or "AlO.sub.x" or<br>"AlO.sub.n") | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/12 14:45 |
| S18<br>8 | 964825 | Cu or Nife or Ni-fe or Sc-Zn or Sczn   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/12 14:45 |
| S18<br>9 | 7      | S186 and S187 and S188   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/12 14:53 |
| S19<br>0 | 113    | S186 and SOI   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/12 14:45 |
| S19<br>1 | 2214   | transitional adj metal   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/12 14:55 |

## EAST Search History

|          |        |  |   |    |    |                  |
|----------|--------|--|---|----|----|------------------|
| S19<br>2 | 788789 | (copper) or (nickel adj iron) or (ferrous) or S191 | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/12 14:55 |
| S19<br>3 | 0      | (recording adj head adj sliders) and SOI           | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/12 14:56 |
| S19<br>4 | 77     | (recording adj head) and SOI                       | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/12 14:56 |
| S19<br>5 | 15     | S192 and S194                                      | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/12 14:57 |
| S19<br>6 | 0      | S195 and RIE and DRIE                              | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/12 14:57 |
| S19<br>7 | 0      | S195 and DRIE                                      | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/12 14:57 |
| S19<br>8 | 1      | S195 and RIE                                       | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/12 14:57 |
| S19<br>9 | 1084   | 360/110  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/12 15:50 |
| S20<br>0 | 243    | S199 and alumina                                   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/12 15:50 |
| S20<br>1 | 0      | S200 and drie                                      | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/12 15:51 |

## EAST Search History

|          |     |   |   |      |    |                  |
|----------|-----|---|---|------|----|------------------|
| S20<br>2 | 23  | S200 and rie                              | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR   | ON | 2006/07/12 15:51 |
| S20<br>3 | 369 | S199 and slider                           | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR   | ON | 2006/07/12 15:51 |
| S20<br>4 | 13  | S202 and S203                             | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR   | ON | 2006/07/12 15:53 |
| S20<br>5 | 217 | cutting thin film magnetic head<br>slider | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 15:55 |
| S20<br>6 | 3   | S205 and drie                             | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 16:20 |
| S20<br>7 | 2   | drie same etch sio                        | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 16:20 |
| S20<br>8 | 2   | drie same etch same sio                   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 16:28 |
| S20<br>9 | 567 | drie same etch same silicon               | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 16:28 |
| S21<br>0 | 114 | drie near silicon                         | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 16:28 |
| S21<br>1 | 9   | drie near silicon near substrate          | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 16:32 |

## EAST Search History

|          |    |  |   |      |    |                  |
|----------|----|--|---|------|----|------------------|
| S21<br>2 | 9  | drie and S211                                  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 16:32 |
| S21<br>3 | 9  | silicon and S212                               | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 16:32 |
| S21<br>4 | 9  | substrate and S213                             | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 16:38 |
| S21<br>5 | 6  | dice silicon drie                              | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 16:39 |
| S21<br>6 | 46 | cut silicon drie                               | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 16:57 |
| S21<br>7 | 2  | "6776690".pn.                                  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 16:57 |
| S21<br>8 | 1  | S217 and drie                                  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 16:58 |
| S21<br>9 | 1  | S218 and alumina                               | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 17:27 |
| S22<br>0 | 7  | (magnetic near head) and (anchor<br>near base) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 17:40 |
| S22<br>1 | 7  | S220 and anchor                                | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 17:07 |

## EAST Search History

|          |        |   |   |      |    |                  |
|----------|--------|---|---|------|----|------------------|
| S22<br>2 | 1      | anchor near (pole adj tip)              | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 17:08 |
| S22<br>3 | 45     | base near (pole adj tip)                | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 17:08 |
| S22<br>4 | 45     | S223 and base                           | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 17:10 |
| S22<br>7 | 47     | alumina near slider                     | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 17:39 |
| S22<br>8 | 0      | S227 and (anchor near base) near slider | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 17:28 |
| S22<br>9 | 1      | S227 and (anchor near base)             | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 17:28 |
| S23<br>0 | 1453   | slider near base                        | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 17:39 |
| S23<br>1 | 136318 | (magnetic near head)                    | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 17:40 |
| S23<br>2 | 194    | S230 and S231                           | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 17:44 |
| S23<br>3 | 0      | S232 and (guide near rail)              | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 17:45 |

## EAST Search History

|          |         |  |   |      |    |                  |
|----------|---------|--|---|------|----|------------------|
| S23<br>4 | 13      | S232 and (guide)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | SAME | ON | 2006/07/12 17:45 |
| S23<br>5 | 129     | ((silicon adj dioxide) or (SiO2 or SiOx or SiOn or "SiO.sub2" or "SiO.subx" or "SiO.subn" or "SiO.sub.2" or "SiO.sub.x" or "SiO.sub.n")) with DRIE | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR   | ON | 2006/07/13 12:53 |
| S23<br>6 | 3       | ((silicon adj dioxide) or (SiO2 or SiOx or SiOn or "SiO.sub2" or "SiO.subx" or "SiO.subn" or "SiO.sub.2" or "SiO.sub.x" or "SiO.sub.n")) near DRIE | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR   | ON | 2006/07/13 09:12 |
| S23<br>7 | 6       | S235 and slider  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR   | ON | 2006/07/13 09:23 |
| S23<br>8 | 2       | S237 and rie   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR   | ON | 2006/07/13 09:25 |
| S23<br>9 | 1636033 | patterned rie on drie  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR   | ON | 2006/07/13 09:25 |
| S24<br>1 | 13      | (transitional adj metal) with (pattern or patterning or mask)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR   | ON | 2006/07/13 11:16 |
| S24<br>2 | 43244   | (Copper or cu) with (pattern or patterning or mask)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR   | ON | 2006/07/13 11:16 |
| S24<br>3 | 7174    | (Copper or cu) near (pattern or patterning or mask)  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR   | ON | 2006/07/13 11:17 |
| S24<br>4 | 2870    | (Copper or cu) adj (pattern or patterning or mask)   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR   | ON | 2006/07/13 11:17 |

## EAST Search History

|          |      |   |   |    |    |                  |
|----------|------|---|---|----|----|------------------|
| S24<br>5 | 216  | (Copper or cu) adj (mask)                                       | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/13 11:21 |
| S24<br>6 | 8    | S245 and mems   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/13 11:18 |
| S24<br>7 | 23   | (Copper or cu) near (mask) and<br>(magnetic adj head)           | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/13 11:27 |
| S24<br>9 | 16   | (Copper or cu) near (mask) same<br>etch same dielectric         | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/13 11:36 |
| S25<br>0 | 0    | mask near is near (Copper or cu)                                | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/13 11:38 |
| S25<br>1 | 2    | "4965702".pn.   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/13 11:38 |
| S25<br>2 | 1    | S251 and mask and copper and<br>metal and plasma and dielectric | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/13 12:32 |
| S25<br>3 | 1300 | remove with etch near mask                                      | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/13 12:32 |
| S25<br>4 | 242  | remove near etch near mask                                      | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/13 12:32 |
| S25<br>5 | 69   | remove adj etch adj mask  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/13 12:32 |

## EAST Search History

|          |    |  |   |    |    |                  |
|----------|----|--|---|----|----|------------------|
| S25<br>6 | 2  | "6989331".pn.  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/13 12:53 |
| S25<br>7 | 1  | ((silicon adj dioxide) or (SiO2 or SiOx or SiOn or "SiO.sub2" or "SiO. subx" or "SiO.subn" or "SiO.sub.2" or "SiO.sub.x" or "SiO.sub.n")) with (silicon adj substrate) with slider | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/13 12:54 |
| S25<br>8 | 5  | ((silicon adj dioxide) or (SiO2 or SiOx or SiOn or "SiO.sub2" or "SiO. subx" or "SiO.subn" or "SiO.sub.2" or "SiO.sub.x" or "SiO.sub.n")) with (silicon adj substrate) same slider | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/13 12:55 |
| S25<br>9 | 9  | ((silicon adj dioxide) or (SiO2 or SiOx or SiOn or "SiO.sub2" or "SiO. subx" or "SiO.subn" or "SiO.sub.2" or "SiO.sub.x" or "SiO.sub.n")) same (silicon adj substrate) same slider | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/13 13:56 |
| S26<br>0 | 0  | plating with metal with pattern with stripping with slider   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/13 13:57 |
| S26<br>1 | 0  | plating near metal near pattern near stripping near slider   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/13 13:57 |
| S26<br>2 | 0  | plating same metal same pattern same stripping same slider   | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/13 13:58 |
| S26<br>3 | 2  | plating same metal same pattern same stripping and slider  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/13 14:16 |
| S26<br>4 | 70 | (sputter adj etch) with seed near layer  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/13 14:17 |

## EAST Search History

|          |   |   |   |    |    |                  |
|----------|---|---|---|----|----|------------------|
| S26<br>5 | 4 | (sputter adj etch) near seed near<br>layer  | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/13 15:12 |
| S26<br>6 | 1 | remove near alumina with (wet<br>near etch) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/13 15:13 |
| S26<br>7 | 1 | remove near alumina same (wet<br>near etch) | US-PGPUB;<br>USPAT;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON | 2006/07/13 15:13 |